



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D350-591-311
Job Sheet 183722



Part No: D350-591-311

Job Qty: 10 ea

Part Name: Heli-Access-Step™ LH - High Gear, Long Step, Aerazur Float Compatible



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/25/18

Job Tracking No: AIRBUS

Due Date: 12/21/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV B IPP Rev:A 04.03.22 New issue KJ/RF IPP Rev:B 07-06-09 Added D3272-1 JLM IPP C returned to CHG001 for Eurocopter, ref NCR08-082 LL verified by:EC IPP Rev:D fixe route seq in bom DD 10.04.28 verified by:EC

Ship Via:

L707

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea	12/21/18	12/21/18	0.00	0.00	Start Up Large Fab-4		SLU
110	Large Fab	10 pcs	12/21/18	12/21/18	0.00	9.91	Large Fab 2		SLU
120	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC9		CPL
130	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC5		CPL
140	HandFinish	10 pcs	12/21/18	12/21/18	0.00	1.84	HandFinish1		DR 18/11/05
150	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC7-2		CPL
180	Large Fab	10 pcs	12/21/18	12/21/18	0.00	9.91	Large Fab 2		DR 18/11/05
190	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC10		CPL
200	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC5		DR 18/11/05
210	HandFinish	10 pcs	12/21/18	12/21/18	0.00	1.84	HandFinish1		DR 18/11/05
220	Powdercoat	10 pcs	12/21/18	12/21/18	0.00	2.90	Powdercoat1		DR 18/11/05
230	HandFinish	10 pcs	12/21/18	12/21/18	0.00	1.84	HandFinish3		DR 18/11/05
240	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC3		DR 18/11/05
250	Packaging	10 pcs	12/21/18	12/21/18	0.00	0.00	Packaging1-3		DR 18/11/05
260	QC	10 pcs	12/21/18	12/21/18	0.00	0.00	QC4		DR 18/11/05
270	Packaging	10 pcs	12/21/18	12/21/18	0.00	0.00	Packaging3-1		DR 18/11/05
275	DC	10 pcs	12/21/18	12/21/18	0.00	0.00	DC		DR 18/11/05
280	QC21-FG	10 Ea	12/21/18	12/21/18	0.00	0.00	QC21		DR 18/11/05

Part Op 110 - 1-Bevel end for welding FWD ONLY 2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg Descriptions: D3272 A/R Aluminum Rod M134785 3-Grind End Plate flush

180 - 1-Assemble Leg Assembly as per Dwg D3272. 2-Leave one rivet out until welding is complete. 3-Bevel Aft end for welding 4-Inspect for foreign object as per QSI 024 5-Weld Aft End Plate as per QSI 004 & Dwg D3272 A/R Aluminum Rod 6-Grind End Plate flush 7-Install last rivet as per Dwg.

220 - START TIME: 5:35 OVEN TEMPERATURE: 500 FINISH TIME: 4:05

270 - Identify and pack for shipping as per PPPD350-591-311 Location : FG084

275 - Photocopy bluefile and type labels as per PPP D350-591-311 CHG001

Wing walk. M138963.

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D3067-1	End Plate	20 Ea (2 ea)	90-Start up Operation	5104294
D3219-1	Plate	20 Ea (2 ea)	90-Start up Operation	5108646
D3272-1	Step	10 Ea (1 ea)	90-Start up Operation	5118300

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																				
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																				
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																				
Large Fab ☐	Composite ☐	Supplier ☐																																																																					
Date :		Step #:		QTY Effective :		MRB (QSI042) Approval																																																																	
Description Work Order Deviation				Disposition																																																																			
				Completed By																																																																			
				Lead hand / Supervisor Approval Verification																																																																			
				QC / QA Coordinator Approval																																																																			
Root Cause <table style="width:100%;"> <tr><td>Environment ☐</td><td>No Re-verification ☐</td></tr> <tr><td>Design ☐</td><td>Operator ☐</td></tr> <tr><td>Doc/Data ☐</td><td>Offset/Setup ☐</td></tr> <tr><td>Equip/Tooling ☐</td><td>Supplier ☐</td></tr> <tr><td>Handling/Pre ☐</td><td>Training ☐</td></tr> <tr><td>Material ☐</td><td>Use for Testing ☐</td></tr> <tr><td>Internal Transport ☐</td><td>Poor Information ☐</td></tr> <tr><td>Tribal Knowledge ☐</td><td>Rushing ☐</td></tr> <tr><td>LOA ☐</td><td>Product Improvement ☐</td></tr> <tr><td>Substation ☐</td><td>Process Improvement ☐</td></tr> <tr><td>Past Expiry Date ☐</td><td>Manufacturing Process ☐</td></tr> <tr><td>Misidentified ☐</td><td>Past Due ☐</td></tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%;"> <tr><td>Pressure/Forced ☐</td><td>Temperature/Cure ☐</td><td>Power Loss/Surge ☐</td><td>Positioned Wrong ☐</td></tr> <tr><td>Bending ☐</td><td>Set-up ☐</td><td>Folio/Program ☐</td><td>Outside Dimensions ☐</td></tr> <tr><td>Centre Not Concentric ☐</td><td>BOM/Route ☐</td><td>Grain ☐</td><td>Over/Under tolerance ☐</td></tr> <tr><td>Cracks ☐</td><td>Broken/Damage/Defect ☐</td><td>Weld ☐</td><td>Part Incorrect ☐</td></tr> <tr><td>Crimp/Kink/Ripple/Wave ☐</td><td>Inspection Incomplete/Unqualified ☐</td><td>Wrong Stock Pulled ☐</td><td>Part Lost/Missing ☐</td></tr> <tr><td>Cuffs ☐</td><td>Contamination ☐</td><td>Out of Sequence ☐</td><td>Part Moved ☐</td></tr> <tr><td>Crushing ☐</td><td>Countersink ☐</td><td>Off-set ☐</td><td>Drawing ☐</td></tr> <tr><td>Heat Treat ☐</td><td>Cut Too Short ☐</td><td>Mislabeled ☐</td><td>Finish ☐</td></tr> <tr><td>Wave/Twist in Tube ☐</td><td>Instructions Incomplete/Unclear ☐</td><td>Fit/Function ☐</td><td>Misread ☐</td></tr> <tr><td>Marks/Chatter ☐</td><td>Drill Holes ☐</td><td>Misaligned/off center ☐</td><td>Turning Sequence ☐</td></tr> </table>						Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																						
Design ☐	Operator ☐																																																																						
Doc/Data ☐	Offset/Setup ☐																																																																						
Equip/Tooling ☐	Supplier ☐																																																																						
Handling/Pre ☐	Training ☐																																																																						
Material ☐	Use for Testing ☐																																																																						
Internal Transport ☐	Poor Information ☐																																																																						
Tribal Knowledge ☐	Rushing ☐																																																																						
LOA ☐	Product Improvement ☐																																																																						
Substation ☐	Process Improvement ☐																																																																						
Past Expiry Date ☐	Manufacturing Process ☐																																																																						
Misidentified ☐	Past Due ☐																																																																						
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																				
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																				
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																				
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																				
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																				
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																				
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																				
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																				
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																				
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																				
		OTHER : _____																																																																					

D3065-041	Step Leg Assembly	10 Ea (1 ea)	180-Large Fab
D3066-1	Spacer	20 Ea (2 ea)	180-Large Fab
MS20600-AD4W4	Rivet	160 Ea (16 ea)	180-Large Fab
AN3-35A	Bolt	20 Ea (2 ea)	250-Packaging
AN4-13A	Bolt	80 Ea (8 ea)	250-Packaging
AN5-36A	Bolt	20 Ea (2 ea)	250-Packaging
D2230-3	Mounting Lug	40 Ea (4 ea)	250-Packaging
D2618	Bushing	20 Ea (2 ea)	250-Packaging
D2856-400-720	Abrasion Strip 4" X 7.20"	20 Ea (2 ea)	250-Packaging
D3235-1	Mounting Lug	20 Ea (2 ea)	250-Packaging
D3278-041	Support Assembly	10 Ea (1 ea)	250-Packaging
MS21042L3	Nut	20 Ea (2 ea)	250-Packaging
MS21042L4	Nut	80 Ea (8 ea)	250-Packaging
MS21042L5	Nut	20 Ea (2 ea)	250-Packaging
NAS1149D0363J	Washer	40 Ea (4 ea)	250-Packaging
NAS1149D0463J	Washer	160 Ea (16 ea)	250-Packaging
NAS1149D0563J	Washer	40 Ea (4 ea)	250-Packaging

⑨ 5120106 / 5127961 ①
 ① 5101804 / 5113167 ⑧
 5117949
 5101329
 5115326
 5099504
 5116213
 5118538
 5104554
 5128597X16 5113205X4
 5118822
 5094592
 5109736
 5092582
 5085293
 5092780
 5052053

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D3067-1	20	111	0
	D3219-1	20	105	0
	D3272-1	10	1	0
180-Large Fab	D3065-041	10	18	0
	D3066-1	20	130	0
250-Packaging	MS20600-AD4W4	160	245	0
	AN3-35A	20	373	0
	AN4-13A	80	774	0
	AN5-36A	20	318	0
	D2230-3	40	179	0
	D2618	20	167	0
	D2856-400-720	20	226	0
	D3235-1	20	259	0
	D3278-041	10	0	0
	MS21042L3	20	3,077	0
	MS21042L4	80	4,463	0
	MS21042L5	20	832	0
	NAS1149D0363J	40	2,097	0
	NAS1149D0463J	160	6,598	0
	NAS1149D0563J	40	1,526	0

Part Specifications

Specifications could not be found.

6529

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____	DISPOSITION ☐ Rewor ☐ Scra ☐ Use-as- ☐ Suspected Unapprove
Part No. _____	
NCR No. _____	

Date : _____	Step #: _____
--------------	---------------

Description Work Order Deviation



Container No: S122647
Part: D350-591-311
Job No: 183722
Serial No/Batch: S122647

Revision: _____
 Inspector: _____
 Exp Date: _____
 Instructions: TC STC SH92-6 Issue 1d at FAc081TC SH967NE 04/12/21, BRAZIL 1

DART Aerospace Ltd.
 1270 Aberdeen Street
 Hamilton, ON K8A 1K7
 CANADA
 TEL: 1 813 632-1520
 Email: sales@dartaero.com
 www.dartaerospace.com

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X						D350-591-213	Heli-Access-Step™, Short Step – High Skid, LH
	X					D350-591-214	Heli-Access-Step™, Short Step – High Skid, RH
		X				D350-591-215	Heli-Access-Step™, Short Step – Low Skid, LH
			X			D350-591-216	Heli-Access-Step™, Short Step – Low Skid, RH
				X		D350-591-311	Heli-Access-Step™, Long Step – High Skid, LH
					X	D350-591-312	Heli-Access-Step™, Long Step – High Skid, RH
1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
				1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
					1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
2	2	2	2	4	4	D2230-3	MOUNTING LUG
2	2	2	2	2	2	D2618	BUSHING
4	4	4	4			D2732-030	CUSHION
				2	2	D2856-400-720	ABRASION STRIP
2	2	2	2	2	2	D3235-1	MOUNTING LUG
				1	1	D3278-041	SUPPORT ASSEMBLY
2	2	2	2	2	2	AN3-35A	BOLT
				8	8	AN4-13A	BOLT
4	4	4	4			AN4-15A	BOLT
2	2	2	2	2	2	AN5-36A	BOLT
4	4	4	4	4	4	NAS1149D0363J	WASHER (AN960JD10)
12	12	12	12	16	16	NAS1149D0463J	WASHER (AN960JD416)
4	4	4	4	4	4	NAS1149D0563J	WASHER (AN960JD516)
2	2	2	2	2	2	MS21042L3	NUT
6	6	6	6	8	8	MS21042L4	NUT
2	2	2	2	2	2	MS21042L5	NUT
				1	1	*DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 15 for installation of the DSI 9410-011 Kit.

REFERENCE ONLY

RECEIVED

RECEIVED